

TO THE CHAIR OF THE ACADEMIC JURY
PROF. KIRIL HRISTOZOV, MD, PHD
APPOINTED BY ORDER No. R-109-421 / 03.10.2025
OF THE RECTOR OF MEDICAL UNIVERSITY – VARNA
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REVIEW

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REGARDING: Competition for the academic position of “Professor” in the scientific specialty “Endocrinology” in the field of higher education 7. Healthcare and Sports, professional field 7.1. Medicine, announced in State Gazette issue 64 of 05.08.2025, for the needs of the Second Department of Internal Medicine, Faculty of Medicine, and the Clinic of Endocrinology and Metabolic Diseases at University Hospital “St. Marina”, Varna.

At a meeting of the Faculty Council of the Faculty of Medicine at MU–Varna (Minutes No. 46 / 29.09.2025) and by Order No. R-109-421 / 03.10.2025 of the Rector of MU–Varna, I was elected as a member of the Academic Jury (AJ), and by Protocol No. 1 of the first meeting of the Academic Jury, I was designated to prepare a review for the procedure to occupy the academic position of “Professor” in the specialty “Endocrinology,” with the sole candidate Assoc. Prof. Mira Valentinova Siderova, MD, PhD.

I. Analysis of the candidate’s career profile.

Assoc. Prof. Mira Valentinova Siderova obtained a Master’s degree in Medicine at MU–Varna, receiving the “Golden Hippocrates” award in 2003. From 2006 to 2009 she was a full-time doctoral student in the field of Endocrinology. In 2013 she successfully defended her dissertation entitled “Immunohistochemical markers and ultrasound elastography - new diagnostic possibilities in the evaluation of thyroid nodules” to obtain the educational and scientific degree “Doctor” in the specialty “Endocrinology.” From 2008 to 2014 she was a part-time assistant at MU–Varna, Department of Internal Medicine / Section of Endocrinology. Since 2012 she holds a recognized specialty in Endocrinology and Metabolic Diseases. From 2015 to 2017 she was a university assistant at MU–Varna, Department of Internal Medicine / Section of Endocrinology. From 2017 to the present - Associate Professor at MU–Varna, Second Department of Internal Medicine / Section of Endocrinology. From 2022 to the present - Head of the Second Department of Internal Medicine, Faculty of Medicine, MU–Varna. Since 2024 to the present she was Chair of the State Examination Board in the specialty “Endocrinology and Metabolic Diseases.” Her professional development began in 2003; until 2005 she was a physician in the Department of Anesthesiology and Intensive Care, MHAT “St. Anna,” Varna; from 2005 to 2022 she was a physician at the Clinic of Endocrinology and Metabolic Diseases, UMHAT “St. Marina,” Varna,

successively as resident, specialist, assistant, and associate professor. Since 2023 she has been Head of the Clinic of Endocrinology and Metabolic Diseases, University Hospital "St. Marina," Varna.

She participates in commissions and multidisciplinary teams: Commission on Endocrine Tumors; commissions for the treatment of patients with type 1 and type 2 diabetes, growth hormone deficiency, calcitriol therapy, patients with hyperprolactinemia and acromegaly; a commission for prescribing medical devices for insulin pumps and sensors.

Qualifications:

- Professional qualification "Ultrasound of the neck" (certificate series PK-MUV No. 000459, reg. No. 0432 / 09.07.2018)
- Professional qualification "Fine-needle aspiration biopsy under ultrasound guidance of the thyroid, parathyroid glands, lymph nodes, and cervical masses" (certificate series PK-MUV No. 000461, reg. No. 0434 / 17.07.2018)
- European Thyroid Association Ultrasound Course – 2009 (Lisbon)
- Three-month specialization in Endocrinology in Bari, Italy under the Erasmus program in 2008
- Course in osteodensitometry and work with sources of ionizing radiation, certificate IU-04-7428/2010
- Rising Stars Educational Program "Diabetes management today: bridging physiology and clinical practice," September 2015, Stockholm, Sweden
- Joslin Diabetes Center, The Joslin Case Clinic, 25 June 2016, Bucharest
- "Ethics and integrity in medical research," European Commission; 2017
- Practical course with certificate "Ultrasound meets Cytopathology," Hungary; 2017
- Practical course with a certificate "Focus on US-guided diagnostic procedures and laser treatment of thyroid lesions," Regina Apostolorum Hospital, Rome, Italy; 2018
- Steno Frontiers in Diabetology, Steno Diabetes Center, Copenhagen; 2024

Assoc. Prof. Mira Siderova delivers lectures and practicals in Endocrinology to fifth-year medical students (in Bulgarian and English), lectures and practicals in Endocrinology to third-year students in Medical Cosmetics, and practical training and seminars with sixth-year medical interns (Bulgarian- and English-language programs). She supervises doctoral students, participates in continuing medical education (CME) theoretical courses for residents in "Endocrinology and Metabolic Diseases," and is a member of semester and state examination committees in Internal Medicine and Endocrinology and Metabolic Diseases.

Assoc. Prof. Mira Siderova is proficient in English, German, Greek, and Russian.

II. General description of the materials submitted for the competition.

The materials submitted by the candidate contain the full set of information necessary to perform a quantitative and qualitative evaluation of her overall academic development. Evidence is provided for published original articles, participation in scientific forums in Bulgaria and abroad,

citation records, contributions of the scientific works, and abstracts of the scientific papers. The documentation is detailed and neatly organized in the form of statements, lists, and supporting evidence.

III. Evaluation of the candidate's scientific works in view of overall academic development.

Assoc. Prof. Mira Valentinova Siderova's total scientific output to date includes: dissertation - 1 (140 pp.); monographs - 1 (125 pp.); chapters in textbooks/books - co-author of 3 textbooks; articles - 65 (total 156 pp.); conference papers - 31 at international and 80 at national forums. The works presented for participation in the competition, 59 in total, reflect research activity in the period 2017–2025. Of these, 35 were published in Bulgarian and 24 in English. She is sole author of 9 publications; co-author of 50, among which: first author in 8 publications, second author in 21, third author in 15, and fourth or subsequent author in 6 publications. The research targets complex clinical and theoretical aspects of endocrine diseases. The largest number of publications concerns thyroid pathology, which is a continuation of the dissertation work. The latter focuses on sonographic criteria for assessing the malignant potential of thyroid nodules, implementation of innovative ultrasound methods (elastography of thyroid nodules), performance of fine-needle aspiration biopsy (FNAB) and cytomorphological examination; analysis of cyto-histological correlations; and immunohistochemical characterization of benign and malignant thyroid lesions. Differentiated thyroid carcinoma is the most common malignant disease of the endocrine system and typically presents as nodular goiter, the latter being an extremely frequent clinical and ultrasound finding. Assoc. Prof. Siderova presents a well-reasoned approach to the diagnosis, treatment, and follow-up of patients with thyroid cancer, based on both her own and international experience. She outlines current views on sonographic evaluation of thyroid nodules, distinguishing benign nodules that can be managed conservatively from those with suspicious or malignant features requiring further assessment and treatment, including FNA, selected molecular techniques, and surgery. She emphasizes the need to establish strict criteria for diagnosis, treatment, and follow-up in order to minimize potential harm from overtreatment in low-risk patients and to ensure adequate therapy for high-risk patients.

Autoimmune thyroid diseases are addressed in a broad study of lipid parameters in over 700 participants with and without hypothyroidism. The relationship between primary hypothyroidism (overt and subclinical) and depression is examined, as is the impact of chronic thyroid-hormone therapy on bone metabolism. Attention is given to thyroid-associated ophthalmopathy (TAO) - an organ-specific autoimmune phenomenon associated with autoimmune thyroid disease. Another topical issue is the triggering of thyroid autoimmunity by new antineoplastic agents - drugs that treat various cancers by harnessing the immune system against malignant cells. All these studies demonstrate the need for screening for thyroid pathology, as timely diagnosis and properly conducted therapy result in favorable effects on cardiovascular risk, bone quality, and mental well-being.

A group of publications is devoted to sarcopenia - a disease affecting different quantitative and qualitative aspects of musculature, leading to an increased risk of disability, adverse health outcomes, and mortality. Two major aspects are considered: in women with newly diagnosed hyperthyroidism and in men on androgen-deprivation therapy (ADT) for prostate cancer. Hyperthyroidism predisposes to earlier manifestation of sarcopenia, with a threshold age for targeted screening of 54 years, unlike "primary sarcopenia," characteristic after 65 years. The publications highlight hand-grip strength as a valuable, highly informative, and easily administered marker that should be implemented as part of the routine clinical examination of individuals with hyperthyroidism.

Prolonged androgen-deprivation therapy in patients with prostate cancer is associated with a significant decline in muscle mass and strength and supports integrating both imaging and simple clinical tools into routine assessment of prostate-cancer patients receiving ADT.

Hyperparathyroidism in its various forms is a challenge in endocrinology practice, requiring different diagnostic approaches and management strategies. Assoc. Prof. Siderova's publications on parathyroid pathology include primary, secondary, and tertiary hyperparathyroidism; bone mineral density (BMD) and bone biomarkers in patients with chronic kidney disease (CKD); and ultrasound diagnosis of the parathyroids. The review papers and original studies with her participation underscore the need to understand these distinct disorders, which is crucial for correctly diagnosing the underlying cause - whether parathyroid tumor, parathyroid hyperplasia in CKD, or severe vitamin D and calcium deficiency - and for applying appropriate treatment to prevent complications such as osteoporosis, nephrolithiasis, nephrocalcinosis, and other systemic issues.

Diabetes mellitus features prominently in Assoc. Prof. Siderova's publications. A contribution to diabetology is the edited volume "Type 2 Diabetes – from pathophysiology to modern treatment," containing chapters by other author teams covering the latest scientific concepts in the pathogenesis of type 2 diabetes, its complications, and approaches to diagnosis and glycemic control. Part of the book is devoted to the effect of diabetes on cognitive function and treatment strategies to prevent cognitive decline. A group of publications focuses on relatively new classes of glucose-lowering medications - GLP-1 receptor agonists and SGLT2 inhibitors, which have changed international guidelines for the treatment of diabetes, cardiovascular disease, and chronic kidney disease. Of particular value for Bulgaria is a study of recommended antidiabetic therapy at discharge of patients with type 2 diabetes from a university endocrinology clinic. The article emphasizes prescribing organ-protective glucose-lowering agents, namely GLP-1 RAs and SGLT2 inhibitors. Notably, despite the predominance of emergency hospitalizations (over 70%), after control of acute decompensation of diabetes patients are switched to modern organ-protective treatment, and more than half of those with cardio-renal risk (55.7%) received at least one organ-protective drug. An additional contribution is a comparison with the utilization of organ-protective antidiabetic medications in other European and non-European centers. Studies dedicated to high-energy MLS laser therapy for diabetic neuropathy - with original data from joint research with physiotherapy specialists, are of major scientific contribution. The results are promising and

support MLS laser therapy as a safe, non-pharmacological adjunct to standard therapy in patients with painful diabetic peripheral neuropathy. The use of this new, non-invasive method to influence pain and electroneurographic parameters in diabetic polyneuropathy is innovative and was applied for the first time in Bulgaria. The development of diabetes technologies enables more patients to achieve optimal disease control. As a member of the commission prescribing medical devices for insulin pumps and sensors, Assoc. Prof. Siderova shares team experience regarding transition from basal-bolus pen therapy to insulin pump therapy (IPT) and data from continuous glucose monitoring (CGM) during IPT.

Several publications explore metabolic disorders in adrenal and gonadal pathology - non-secreting adrenal incidentalomas, and drug-induced hypogonadism in men. The potential risk of metabolic syndrome in patients with non-secreting adrenal incidentalomas is examined. The metabolic risk is confirmed, as is the need to search for, monitor, and treat metabolic disorders in men with prostate cancer undergoing hormonal therapy.

Rare diseases entail numerous diagnostic and therapeutic challenges in clinical practice and usually necessitate a multidisciplinary approach. Assoc. Prof. Siderova's publications in this area describe specific clinical cases of both practical and theoretical interest.

In conclusion, the scientific works of Assoc. Prof. Mira Siderova cover various areas of endocrinology. They are theoretical, research-practical, and applied-educational in nature. Several concern pilot data for Bulgaria. They address both prevalent and socially significant diseases (e.g., diabetes mellitus, metabolic syndrome, osteoporosis, thyroid dysfunction) and rare endocrine pathologies (e.g., genetic/familial thyroid diseases, including neoplasms; pituitary tumors; and other combined endocrine problems in systemic disorders), representing topical issues in endocrinology.

IV. Evaluation of the monographic work / equivalent scientific publications submitted for "Professor."

For the competition, as substitutes for a habilitation monograph, 11 full-text scientific publications are presented in journals indexed in internationally recognized databases (Scopus and Web of Science), recognized by National Centre for Information and Documentation, at the Ministry of Education and Science. They reflect part of Assoc. Prof. Siderova's research activity after her appointment as Associate Professor, in the period 2017–2025, and are included under indicator B4 "publications equivalent to a monograph." These publications account for 295 bibliometric points with a minimum requirement of 100 points. In 45.5% of these publications, Assoc. Prof. Siderova is first author; in 45.5% - second author; and in 9% - fourth author. The publications deemed equivalent to a habilitation work can be interpreted as theoretical in nature, original, and presenting innovative approaches in a given field (B 4.2, B 4.11), while others can be viewed as having practical-applied contributions. The presented publications reveal the diversity of scientific areas in which Assoc. Prof. Siderova works and publishes. In addition to the articles substituting for a habilitation monograph, a further 46 scientific publications are presented under other indicators in the academic statement, as well as 3 works

beyond the minimum bibliometric requirements (1 article, 1 co-authored recommendation, 1 edited book), totaling 647.61 bibliometric points, with a minimum required in category G of 200.

V. Impact (citations) of the candidate's publications in national and international literature (publication image).

Academic Statement No. 861 / 23.09.2025 lists 12 articles with a total of 29 citations, sufficient to meet the minimum requirements for the academic position "Professor." Of these, 20 citations are in journals indexed in internationally recognized scientific databases, and 9 citations are in non-indexed, peer-reviewed journals. The interest of foreign researchers in the candidate's work attests to the relevance and significance of her publications. Total for indicator D: 345 bibliometric points, with a minimum required for the category of 100 points.

VI. Comprehensive qualitative assessment of teaching and instructional activity.

Assoc. Prof. Mira Siderova has over 10 years of teaching experience. Her teaching load includes lectures, practical classes, and courses for students (Bulgarian- and English-language programs), residents, interns, and doctoral students. She participates in examination boards - semester exams for MU students; enrollment and conducting of colloquia for residents in "Endocrinology and Metabolic Diseases." She is a member of the state examination boards in Endocrinology and Metabolic Diseases. Her total teaching load at MU-Varna over the last four academic years averages 208 hours per year. She supervises specialization in "Endocrinology and Metabolic Diseases" for five physicians in total. She has supervised three successfully defended doctoral students: Evelina B. Zlatanova, MD, PhD (degree awarded 02.03.2022), Lili Y. Yosifova, MD, PhD (degree awarded 01.12.2022), and Gergana T. Marinova, MD, PhD (degree awarded 20.03.2025).

As a member of academic juries, she has participated in procedures and competitions for obtaining the PhD degree and for the academic position of "Associate Professor." Total for indicator E (E13-E22): 171.53 bibliometric points, with a minimum required for the category of 100 points.

VII. Critical remarks and recommendations.

The analysis above of Assoc. Prof. Siderova's professional, scientific, instructional, and teaching activities gives me no grounds to present critical remarks. I can only recommend maintaining this fruitful and multifaceted activity.

VIII. Overall assessment of the candidate's compliance with the minimum national requirements under Art. 2b, paras. 2 and 3, respectively the requirements under Art. 2b, para. 5 of the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), and the specific requirements of MU-Varna by areas and for units with/without clinical activity as set out in the Regulations for the Development of the Academic Staff of MU-Varna (RDAS).

The materials submitted by Assoc. Prof. Mira Valentinova Siderova meet the minimum national requirements and those of MU–Varna for the academic position “Professor” – Academic Statement No. 861 / 23.09.2025 (Table 1).

Table 1. Minimum required points by groups of indicators for the academic position “Professor”

Indicator Minimum requirements of MU–Varna Assoc. Prof. Mira Siderova, MD, PhD		
Indicator A	50	50
Indicator B	—	—
Indicator V	100	295
Indicator G	200	647.61
Indicator D	100	345
Indicator E	100	171.53
TOTAL	600	1509.14

IX. Conclusion

Dr. Mira Valentinova Siderova, MD, PhD is an established and authoritative specialist with a wide range of professional and scientific interests, as well as extensive teaching experience. Her research has a broad thematic scope and addresses current medico-social problems. The scientific works contain theoretical, methodological, and applied contributions of national and international significance. On this basis, I confidently cast my positive vote and propose that the esteemed Academic Jury award Assoc. Prof. Mira Valentinova Siderova, MD, PhD the academic position of “Professor” in the scientific specialty “Endocrinology,” professional field 7.1. Medicine, at the Second Department of Internal Medicine, Medical University – Varna.

03.11.2025 (Plovdiv)

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/ Prof. M. Mitkov, MD, PhD/